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## CCNA 2:Final Set 3

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### Options With Highlight Colours are Correct Answer

**1. Refer to the exhibit. The output of the show ip route command for three routers on a network is displayed. All routers are operational, pings are not blocked on this network, and no default routes are installed. Which two pings will fail? (Choose two.)**

from R1 to 172.16.1.1  
from R1 to 192.168.3.1  
from R2 to 192.168.1.1  
from R2 to 192.168.3.1  
from R3 to 192.168.1.1

**2. A router that uses the RIP routing protocol has an entry for a network in the routing table. It then receives an update with another entry for the same destination network but with a lower hop count. What action will the router take for this new update?**

It will append the update information to the routing table.  
It will invalidate the entry for that network in the routing table.  
It will replace the existing routing table entry with the new information.  
It will ignore the new update.

**3. Which two statements are true for OSPF Hello packets? (Choose two.)**

They negotiate correct parameters among neighboring interfaces.  
They are used for dynamic neighbor discovery.  
They use timers to elect the designated router with the fastest link.  
They are received from all routers on the network and used to determine the complete network topology.  
They are used to maintain neighbor relationships.

**4. A network administrator needs to configure a single router to load-balance the traffic over unequal cost paths. Which routing protocol should the administrator use?**

EIGRP  
OSPF  
RIPv1  
RIPv2

**5. Which two statements are correct about the split horizon with poison**

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**reverse method of routing loop prevention? (Choose two.)**

It is enabled by default on all Cisco IOS implementations.

It assigns a value that represents an infinite metric to the poisoned route.

It sends back the poisoned route update to the same interface from where it was received.

It instructs routers to hold all changes that might affect routes, for a specified period of time.

It limits the number of hops a packet can traverse through the network before it is discarded.

**6. Refer to the exhibit. The show cdp neighbors command was run on one of the devices as shown. Based on this information, which two facts can be determined? (Choose two.)**

The command was run on the router.

ABCD is a non- CISCO device.

Layer 3 connectivity between two devices exists.

ABCD supports routing capability.

ABCD is connected to the Fa0/0 interface of the neighboring device.

**7. Refer to the exhibit. The network has three connected routers: R1, R2 and R3. The routes of all three routers are displayed. What can be verified from the output?**

R1 and R3 are connected to each other via the S0/0/0 interface.

The IP address of the S0/0/0 interface of R1 is 10.1.1.2.

The IP address of the S0/0/1 interface of R2 is 10.3.3.2.

R2 is connected to the S0/0/1 interface of R3.

**8. Refer to the exhibit. Which three statements are true of the routing table for Router1? (Choose three.)**

The route to network 172.16.0.0 has an AD of 156160.

Network 192.168.0.16 can best be reached using FastEthernet0/0.

The AD of EIGRP routes has been manually changed to a value other than the default value.

Router1 is running both the EIGRP and OSPF routing process.

Network 172.17.0.0 can only be reached using a default route.

No default route has been configured.

**9. Refer to the exhibit. All the routers are properly configured to use the RIP routing protocol with default settings, and the network is fully converged. Router A is forwarding data to router E. Which statement is true about the routing path?**

Router A will send the data via the A-D-E path that is listed in the routing table.

Router A will load-balance the traffic between A-B-E and A-C-E.

Router A will determine that all paths have equal metric cost.

Router A will send the data through A-D-E and keep A-B-E and A-C-E as the backup paths.

**10. Refer to the exhibit. The network administrator has run the following command on R1. R1# ip route 192.168.2.0 255.255.255.0 172.16.1.2 What is the result of running this command?**

Traffic for network 192.168.2.0 is forwarded to 172.16.1.2.

This route is automatically propagated throughout the entire network.

Traffic for all networks is forwarded to 172.16.1.2.

The command invokes a dynamic routing protocol for 192.168.2.0.

**11. Refer to the exhibit. The network administrator is planning IP addressing of a new network. What part of this addressing scheme must be changed to allow communication between host A and the server?**

the IP address of the server

the default gateway of host A

the IP address of host A

the default gateway of the server

**12. Refer to the exhibit. A network administrator has configured OSPF using the following command: network 192.168.1.32 0.0.0.31 area 0 Which router interface will participate in OSPF?**

FastEthernet0/0

FastEthernet0/1

Serial0/0/0

Serial0/0/1

**13. Refer to the exhibit. All routers are configured to run RIPv1 and are fully converged. Which routing updates will be received by R3?**

updates for 192.168.1.0/24 and 192.168.2.0/24

updates for 172.16.2.0/24 and 172.16.3.0/24

updates for 172.16.1.0/24, 172.16.2.0/24 and 172.16.3.0/24

updates for 172.16.0.0/16

**14. Refer to the exhibit. Both routers are using the RIP protocol. Devices on the 192.168.1.1 network can ping the S0/0/0 interface on R2 but cannot ping devices on the 192.168.2.1 network. What is a possible cause of this problem?**

The routers are configured with different versions of RIP.

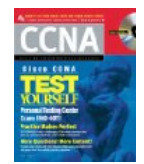
R2 is not forwarding the routing updates.

The R1 configuration should include the no auto-summary command.

The maximum path number has been exceeded.

**15. When a router boots, what is the default order to locate the Cisco IOS if**

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**there is no boot system command?**

ROM, TFTP server, flash

flash, TFTP server, RAM

flash, NVRAM, TFTP server

ROM, flash, TFTP server

**16. Refer to the exhibit. Which router is advertising subnet 172.16.1.32/28?**

Router1

Router2

Router3

Router4

**17. Which mechanism helps to avoid routing loops by advertising a metric of infinity?**

route poisoning

split horizon

hold-down timer

triggered updates

**18. Refer to the exhibit. What is the meaning of the highlighted value 120?**

It is the metric that is calculated by the routing protocol.

It is the value that is used by the DUAL algorithm to determine the bandwidth for the link.

It is the administrative distance of the routing protocol.

It is the hold-down time, measured in seconds, before the next update.

**19. Refer to the exhibit. A network administrator successfully pings R1 from R3. Next, the administrator runs the show cdp neighbors command on R3. The output of this command is displayed. What are two reasons for the absence of R1 in the output? (Choose two.)**

There is a Layer 2 connectivity problem between R1 and R3.

The Fa0/0 interface of R1 is configured with an incorrect IP address.

The no cdp run command has been run at R1.

The no cdp enable command has been run at Fa0/1 interface of R3.

R1 is powered off.

**20. Refer to the exhibit. A device is required to complete the connection between router R1 and the WAN. Which two devices can be used for this? (Choose two.)**

a CSU/DSU device

a modem

an Ethernet switch

a hub

a bridge

**21. In a complex lab test environment, a router has discovered four paths to 192.168.1.0/24 via the use of the RIP routing process. Which route will be installed in the routing table after the discovery of all four paths?**

R 192.168.1.0/24 [120/3] via 192.168.110.1, 00:00:17, Serial0/1/0

R 192.168.1.0/24 [120/2] via 192.168.200.1, 00:00:17, Serial0/0/0

R 192.168.1.0/24 [120/1] via 192.168.100.1, 00:00:17, Serial0/0/1

R 192.168.1.0/24 [120/4] via 192.168.101.1, 00:00:17, Serial0/1/1

**22. Refer to the exhibit. A network administrator accesses router R1 from the console port to configure a newly connected interface. What passwords will the network administrator need to enter to make the connection and the necessary configuration changes?**

the Cisco123 password only

the Cisco789 password only

the Cisco001 password only

the Cisco001 password and the Cisco789 passwords

the Cisco001 password and the Cisco123 passwords

**23. Refer to the exhibit. A network administrator adds this command to router R1: ip route 192.168.2.0 255.255.255.0 S0/0/0. What is the result of adding this command?**

This route is automatically propagated throughout the network.

The traffic for network 172.16.1.0 is forwarded to network 192.168.2.0.

A static route is established.

The traffic for all Class C networks is forwarded to 172.16.1.2.

**24. Refer to the exhibit. The router receives a packet that is destined for 192.168.5.79. How will the router handle this packet?**

It will forward the packet via the Serial0/0/1 interface.

It will forward the packet via the FastEthernet0/0 interface.

It will forward the packet via the Serial0/0/0 interface.

It will drop the packet.

**25. Which two statements are true about classless routing protocols? (Choose two.)**

They can be used for discontinuous subnets.

They can forward supernet routes in routing updates.

They cannot implement classful routes in routing tables.

They use only a hop count metric.

They do not include the subnet mask in routing updates.

**26. Refer to the exhibit. How many routes are child routes?**

1

3

4

6

**27. A router has EIGRP configured as the only routing protocol. In what two**

**ways does EIGRP respond if there is no feasible successor route to a destination network and the successor route fails? (Choose two.)**

It broadcasts hello packets to all routers in the network to re-establish neighbor adjacencies.

It sends queries to adjacent neighbors until a new successor route is found.

It immediately sends its entire routing table to its neighbors.

It sends queries to adjacent neighbors until the lost route is unknown to the neighbors.

It automatically forwards traffic to a fallback default route until a successor route is found.

**28. Refer to the exhibit. Packets destined to which two networks will require the router to perform a recursive lookup? (Choose two.)**

10.0.0.0/8

64.100.0.0/16

128.107.0.0/16

172.16.40.0/24

192.168.1.0/24

192.168.2.0/24

**29. Refer to the exhibit. Which two statements are true based on the exhibited output? (Choose two.)**

The administrative distance of EIGRP has been set to 50.

All routes are stable.

The show ip eigrp topology command has been run on R1.

The serial interface between the two routers is down.

Each route has one feasible successor.

**30. Refer to the exhibit. All routers are properly configured with default configurations and are running the OSPF routing protocol. The network is fully converged. A host on the 192.168.3.0/24 network is communicating with a host on the 192.168.2.0/24 network. Which path will be used to transmit the data?**

The data will be transmitted via R3-R2.

The data will be transmitted via R3-R1-R2.

The traffic will be load-balanced between two paths — one via R3-R2, and the other via R3-R1-R2.

The data will be transmitted via R3-R2, and the other path via R3-R1-R2 will be retained as the backup path.

**31. A network administrator has enabled RIP on routers B and C in the network diagram. Which of the following commands will prevent RIP updates from being sent to Router A?**

A(config)# router rip

A(config-router)# passive-interface S0/0

B(config)# router rip

B(config-router)# network 192.168.25.48

B(config-router)# network 192.168.25.64

A(config)# router rip

A(config-router)# no network 192.168.25.32

B(config)# router rip

B(config-router)# passive-interface S0/0

A(config)# no router rip

**32. Refer to the exhibit. The hosts on the R1 LAN are unable to access the Internet. What is incorrectly configured?**

the IP address of the Fa0/0 interface at R1

the IP address of the S0/0/1 interface at R2

the IP address of the S0/0/0 interface at R1

the subnet mask of the S0/0/1 interface at R2

**33. Refer to the exhibit. A ping from R1 to 10.1.1.2 is successful, but a ping from R1 to 192.168.2.0 fails. What is the cause of this problem?**

There is no gateway of last resort at R1.

The serial interface between the two routers is down.

A default route is not configured on R1.

The static route for 192.168.2.0 is incorrectly configured.

**34. Refer to the exhibit. The network administrator has run the show ip protocol command on R1. What can be determined from the exhibited output?**

The router is using RIPv2.

The router is not forwarding routing updates.

The router is receiving updates for both versions of RIP.

The FastEthernet0/0 interface is down.

**35. Refer to the exhibit. All routers are configured to use the EIGRP routing protocol with default settings, all routes are advertised on all routers, and the network is fully converged. Which path will the data take to travel between 172.16.1.0/24 and 192.168.100.0/24?**

It will travel via A, B, and C.

It will travel via A, F, E, D, and C.

It will travel via A, G, H, and C.

The traffic will be load-balanced on all paths.

**36. Refer to the exhibit. All routers are configured for OSPF area 0. The network administrator requires that R2 always be the DR and maintain adjacency. Which two configurations can achieve this? (Choose two.)**

Change the OSPF area of R2 to a higher value.

Change the router ID for R2 by assigning the IP address 172.16.30.5/24 to the Fa0/0 interface.

Change the priority values of the Fa0/0 interfaces of R1 and R3 to 0.

Configure a loopback interface on R2, with an IP address higher than any IP address on the other routers.

Configure R1 and R3 with an IP address whose value is higher than that of R2.

**37. Refer to the exhibit. Host A is unable to access the Internet, and troubleshooting has revealed that this is due to an addressing problem. What is incorrectly configured in this network?**

the IP address of the Fa0/0 interface of R1  
the subnet mask of the S0/0/0 interface of R1  
the IP address of the S0/0/0 interface of R1  
the subnet mask of the S0/0/0 interface of R2

**38. Refer to the exhibit. All routes are advertised and fully operational on all routers. Which statement is true about the path that the data will take from router A to router B?**

If EIGRP is used with default configurations, the data will be equally distributed between two paths — A, D, B and A, C, D.  
If RIPV1 is used with default configurations, the data will be load-balanced on all paths.  
If EIGRP and OSPF are both used with default configurations, the data will be sent through paths learned by the OSPF protocol.  
If RIPV2 is used with default configurations, the data will be equally distributed between two paths — A, D, B and A, C, D.

**39. Refer to the exhibit. The interfaces of all routers are configured for OSPF area 0. R3 can ping R1, but the two routers are unable to establish a neighbor adjacency. What should the network administrator do to troubleshoot this problem?**

Check if the interfaces of the routers are enabled.  
Check the hello and dead intervals between the routers.  
Check the process ID of both routers.  
Check if CDP is enabled on all the routers.

**40. Refer to the exhibit. What information can be determined from the highlighted output?**

R1 is originating the route 172.30.200.32/28.  
Automatic summarization is disabled.  
The 172.30.200.16/28 network is one hop away from R1.  
A classful routing protocol is being used.

**41. Which two router component and operation pair are correctly described? (Choose two.)**

DRAM - loads the bootstrap  
RAM - stores the operating system  
Flash - executes diagnostics at bootup  
NVRAM - stores the configuration file  
ROM - stores the backup configuration file  
POST - runs diagnostics on hardware modules

**42. Which routing protocol by default uses bandwidth and delay to calculate the metric of a route?**

RIPv1  
RIPv2  
OSPF  
EIGRP

**43. Two routers need to be configured within a single OSPF area. Which two components need to be configured on both routers to achieve this? (Choose two.)**

the same process ID  
the same area ID  
network addresses and wildcard masks  
the same router ID  
the same loop back address

**44. Refer to the exhibit. The networks that are connected to R1 have been summarized for R2 as 192.168.136.0/21. Which packet destination address will R2 forward to R1?**

192.168.135.1  
192.168.142.1  
192.168.144.1  
192.168.128.1

**45. Refer to the exhibit. R1 is running RIP with default parameters. R1 has learned four different paths with the same metrics to network 192.168.6.0. Which path or paths will R1 use to forward a packet that is destined to 192.168.6.10?**

the first path that the router learned.  
only the first two of the four paths that the router learned.  
the last path that the router learned.  
all four paths.

**46. What are two functions of a router? (Choose two.)**

It connects multiple IP networks.  
It controls the flow of data via the use of Layer 2 addresses.  
It determines the best path to send packets.  
It manages the VLAN database.  
It increases the size of the broadcast domain.

**47. Refer to the exhibit. Which statement is true about the routing process for this network?**

A packet leaves interface Fa0/0 of R1 with the source MAC address as 000C.3010.9260.

The packet leaves interface Fa0/0 of R1 with the source MAC address as 000C.3010.9260.

The no shutdown command needs to run on the Fa0/0 interface of R1.

The Fa0/0 interface of R2 could be configured with the IP address 172.16.4.1/24.

**48. Refer to the exhibit. A network administrator has run the show interface command. The output of this command is displayed. What is the first step that is required to make this interface operational?**

Switch the cable with a known working cable.

Issue the no shutdown command on the interface.

Configure the interface as a loopback interface.

Set the encapsulation for the interface.

**49. Refer to the exhibit. R1 is configured properly for a single area OSPF, and R2 has been recently installed in the network. Which set of commands is required to configure a single area OSPF for the networks that are connected to R2?**

R2(config)# router ospf 1

R2(config-router)# network 192.168.2.0 0.0.0.255 area 0

R2(config-router)# network 10.1.1.0 0.0.0.3 area 0

R2(config)# router ospf 1

R2(config-router)# network 192.168.2.0 0.0.0.255 area 0

R2(config)# router ospf 2

R2(config-router)# network 10.1.1.0 0.0.0.3 area 0

R2(config)# router ospf 1

R2(config-router)# network 192.168.2.0 0.0.0.255 area 0

R2(config-router)# network 10.1.1.0 0.0.0.3 area 1

R2(config)# router ospf 1

R2(config-router)# network 192.168.2.0 0.0.0.255 area 0

R2(config-router)# network 10.0.0.0 0.0.0.3 area 1

**50. Refer to the exhibit. The command ip route 0.0.0.0 0.0.0.0 S0/0/0 is run on router R2. What are the two results of this command? (Choose two.)**

A static route will be updated in the routing table.

The traffic from the Internet will be directed to R2.

The traffic from the source network 172.16.0.0/22 will be blocked.

The route will be specified as the default route for all networks not defined in the routing table.

All the broadcasts will be forwarded via the S0/0/0 interface of R2.

**51. Which three statements are true regarding the encapsulation and de-encapsulation of packets when traveling through a router? (Choose three.)**

The router modifies the TTL field, decrementing it by one.

The router changes the source IP to the IP of the exit interface.

The router maintains the same source and destination IP.

The router changes the source physical address to the physical address of the exit interface.

The router changes the destination IP to the IP of the exit interface.

The router sends the packet out all other interfaces, besides the one it entered the router on.

**52. What are two tasks that must be completed before two routers can use OSPF to form a neighbor adjacency? (Choose two.)**

The routers must elect a designated router.

The routers must agree on the network type.

The routers must use the same dead interval.

The routers must exchange link state requests.

The routers must exchange database description packets.

**53. Refer to the exhibit. Although both the routers can ping the serial interface of their neighbors, they are unable to ping the Ethernet interfaces of other routers. Which two statements are true for this network? (Choose two.)**

The administrative distance has been set to 50 on both routers.

R2 is learning about network 192.168.1.0.

R1 is learning about network 192.168.2.0.

The network 10.1.1.0 command has not been run on both routers.

Autosummarization is enabled on both routers.

**54. Which two situations require the use of a link-state protocol? (Choose two.)**

Fast convergence of the network is critical.

The network is very large.

The network administrator has limited knowledge to configure and troubleshoot routing protocols.

The network is a flat network.

The capacity of the router is low.

**55. Refer to the exhibit. What information can be determined from the displayed output?**

EIGRP packets are waiting to be sent to the neighbors.

The adjacencies between the routers are yet to be established.

The IP address 192.168.10.10 is configured at serial interface S0/0/1 of router R2.

Router R2 is receiving hello packets from a neighbor with the IP address 192.168.10.10 via the R2 S0/0/1 interface.

**56. Refer to the exhibit. PC1 is unable to access the Internet. What is the cause of the problem?**

An incorrect IP address is configured between the two routers.

No static route is configured on Router2.

A routing loop has occurred.

No routing protocol is configured on either of the two routers.

**57. Refer to the exhibit. What summarization should R2 use to advertise its LAN networks to R1?**

172.16.0.0/24  
172.16.4.0/22  
172.16.4.0/23  
172.16.4.0/24

comments (1)

TOP

05:22

## CCNA 2:Final Set 2

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. Refer to the exhibit. A new PC was deployed in the Sales network. It was given the host address of 192.168.10.31 with a default gateway of 192.168.10.17. The PC is not communicating with the network properly. What is the cause?**

The address is in the wrong subnet.

192.168.10.31 is the broadcast address for this subnet.

The default gateway is incorrect.

The host address and default gateway are swapped.

**2. Refer to the routing table shown in the exhibit. What is the meaning of the highlighted value 192?**

It is the value assigned by the Dijkstra algorithm that designates the number of hops in the network.

It is the value used by the DUAL algorithm to determine the bandwidth for the link.

It is the metric, which is cost.

It is the administrative distance.

**3. Refer to exhibit. Given the topology shown in the exhibit, what three commands are needed to configure EIGRP on the Paris router? (Choose three.)**

Paris(config)# router eigrp 100

Paris(config)# router eigrp

Paris(config-router)# network 192.168.6.0

Paris(config-router)# network 192.168.7.0

Paris(config-router)# network 192.168.8.0

Paris(config-router)# network 192.168.9.0

**4. What are three features of CDP? (Choose three.)**

tests Layer 2 connectivity

provides a layer of security

operates a OSI layers 2 and 3

enabled by default on each interface

used for debugging Layer 4 connectivity issues

provides information on directly connected devices that have CDP enabled

**5. Refer to the exhibit. What two statements are true based on the output shown? (Choose two.)**

the reported distance to network 172.16.1.0 is 2172416

192.168.10.5 and 192.168.10.9 are feasible successors

neighbors 192.168.10.9 and 192.168.10.5 have auto summary disabled.

router 3 is load balancing traffic to the 172.16.3.0 network across its serial interfaces.

all interfaces shown on Router3 are in the passive state and will not send EIGRP advertisements

**6. Which of the following should be considered when troubleshooting a problem with the establishment of neighbor relationships between OSPF routers? (Choose three.)**

OSPF interval timers mismatch

gateway of last resort not redistributed

interface network type mismatch

no loopback interface configured

administrative distance mismatch

inconsistent authentication configuration

**7. Refer to the exhibit. Which three statements are true of the routing table for Router1? (Choose three.)**

The route to network 172.16.0.0 has an AD of 156160.

Network 192.168.0.16 can best be reached using FastEthernet0/0.

The AD of EIGRP routes has been manually changed to a value other than the default value.

Router1 is running both the EIGRP and OSPF routing process.

Network 172.17.0.0 can only be reached using a default route.

No default route has been configured.

**8. Refer to the exhibit. The ORL router is unable to form a neighbor relationship with the JAX router. What is a possible cause of this problem?**

Router JAX has the wrong autonomous-system number.

The command network 192.168.2.0 is missing from the EIGRP configuration on the JAX router.

Automatic summarization is not disabled on the JAX router.

Router JAX has the wrong IP address on the Fa0/1 interface.

**9. Which statement is true regarding routing metrics?**

All routing protocols use the same metrics.

EIGRP uses bandwidth as its only metric.

Routers compare metrics to determine the best route.

The larger metric generally represents the better path.

**10. Which three statements are true of holddown timers? (Choose three.)**

used by link state routing protocols to prevent routing loops

prevent update messages from reinstating a route that may have gone bad

allow routers to still forward packets to destination networks that are in holddown

limit the number of hops a packet can traverse through the network before it is discarded

prevent a router advertising a network through the same interface from which the network was learned

permit lower metric updates received from any neighboring router to reinstate the route to a possibly down network

**11. A router has learned about a network through static and dynamic routing processes. Which route will be used to reach network 192.168.168.0?**

D 192.168.168.0/24 [90/2195456] via 192.168.200.1, 00:00:09, Ethernet0

O 192.168.168.0/24 [110/1012] via 192.168.200.1, 00:00:22, Ethernet0

R 192.168.168.0/24 [120/1] via 192.168.200.1, 00:00:17, Ethernet0

S 192.168.168.0/24 [1/0] via 192.168.200.1

**12. The Suffolk router is directly connected to the networks shown in the graphic and has a default route that points to the Richmond router. All interfaces are active and properly addressed. However, when the workstation on network 172.29.5.0/24 sends a packet to destination address 172.29.198.5, it is discarded by the Suffolk router. What can be a reason for this result?**

The ip classless command is not enabled on the Richmond router.

The route was ignored if the Richmond router did not include the 172.29.198.0/24 network in its routing updates.

The Richmond router is in a different autonomous system than the Suffolk router.

The ip subnet-zero command was not configured on the Suffolk router.

The ip classless command is not enabled on the Suffolk router.

**13. Which three statements are true regarding the encapsulation and de-encapsulation of packets when traveling through a router? (Choose three.)**

The router modifies the TTL field, decrementing it by one.

The router changes the source IP to the IP of the exit interface.

The router maintains the same source and destination IP.

The router changes the source physical address to the physical address of the exit interface.

The router changes the destination IP to the IP of the exit interface.

The router sends the packet out all other interfaces, besides the one it entered the router on.

**14. Which of the following are required when adding a network to the OSPF routing process configuration? (Choose three.)**

network address

loopback address

autonomous system number

subnet mask

wildcard mask

area ID

**15. Refer to the exhibit. The routers in the exhibit are running the EIGRP routing protocol. What statement is true regarding how packets will travel from the 172.16.1.0/16 network to the 192.168.200.0/24 network?**

The router chooses the first path that it learned and installs only that route in the routing table.

The router chooses the path with the lowest administrative distance and installs only that route in the routing table.

The router chooses the highest routing ID based on the advertised network IP addresses and installs only that route in the routing table.

The router installs all the equal cost paths in the routing table but sends packets out only one, holding the others in reserve in case the primary route goes down.

The router installs all the equal cost paths in the routing table and performs equal cost load balancing to send packets out multiple exit interfaces.

**16. Which of the following could describe the devices labeled "?" in the graphic? (Choose three.)**

DCE

CSU/DSU

LAN switch

Modem

hub

**17. Which three statements describe the operation of routing with EIGRP? (Choose three.)**

As new neighbors are discovered, entries are placed in a neighbor table.

If the feasible successor has a higher advertised cost than the current successor route, then it becomes the primary route.

If hello packets are not received within the hold time, DUAL must recalculate the topology.

The reported distance is the distance to a destination as advertised by a neighbor.

EIGRP maintains full knowledge of the network topology in the topology table and exchanges full routing information with neighboring routers in every update.

EIGRP builds one routing table that contains routes for all configured routed protocols.



**18. The network shown in the diagram is having problems routing traffic. It is suspected that the problem is with the addressing scheme. What is the problem with the addressing used in the topology?**

The address assigned to the Ethernet0 interface of Router1 is a broadcast address for that subnetwork.

The subnetwork configured on the serial link between Router1 and Router2 overlaps with the subnetwork assigned to Ethernet0 of Router3.

The subnetwork assigned to the Serial0 interface of Router1 is on a different subnetwork from the address for Serial0 of Router2.

The subnetwork assigned to Ethernet0 of Router2 overlaps with the subnetwork assigned to Ethernet0 of Router3.

**19. Refer to the exhibit. Packets destined to which two networks will require the router to perform a recursive lookup? (Choose two.)**

10.0.0.0/8

64.100.0.0/16

128.107.0.0/16

172.16.40.0/24

192.168.1.0/24

192.168.2.0/24

**20. Refer to exhibit. A company network engineer enters the following commands in the routers:R1(config)# ip route 10.1.1.0 255.255.255.0 192.168.0.2R2(config)# ip route 10.1.2.0 255.255.255.0 192.168.0.1When the engineer enters the show ip route command on R1, the routing table does not display the static route to the 10.1.1.0 network. All R1 and R2 interfaces are correctly addressed per the graphic. What is a logical next step that the engineer could take in order to make the static route display in the routing table in R1?**

Enter default routes in R1 and R2.

Enable the R1 and R2 serial interfaces.

Configure the static route to use an exit interface instead of a next-hop address.

Enter the copy run start command to force the router to recognize the configuration.

**21. When the show cdp neighbors command is issued from Router C, which devices will be displayed in the output?**

D, SWH-2

A, B, D

SWH-1, SWH-2

B, D

SWH-1, A, B

A, B, D, SWH-1, SWH-2

**22. Refer to the exhibit. R1 knows two routes, Path A and Path B, to the Ethernet network attached to R3. R1 learned Path A to network 10.2.0.0/16 from a static route and Path B to network 10.2.0.0/16 from EIGRP. Which route will R1 install in its routing table?**

Both routes are installed and load balancing occurs across both paths.

The route via Path B is installed because the EIGRP route has the best metric to network 10.2.0.0/16.

The route via Path A is installed because the static route has the best metric to network 10.2.0.0/16.

The route via Path B is installed because the EIGRP route has the lowest administrative distance to network 10.2.0.0/16.

The route via Path A is installed because the static route has the lowest administrative distance to network 10.2.0.0/16.

**23. A network administrator has enabled RIP on routers B and C in the network diagram. Which of the following commands will prevent RIP updates from being sent to Router A?**

A(config)# router rip

A(config-router)# passive-interface S0/0

B(config)# router rip

B(config-router)# network 192.168.25.48

B(config-router)# network 192.168.25.64

A(config)# router rip

A(config-router)# no network 192.168.25.32

B(config)# router rip

B(config-router)# passive-interface S0/0

A(config)# no router rip

**24. Refer to the exhibit. The network administrator is testing network connectivity by issuing the tracert command from host A to host B. Given the exhibited output on host A, what are two possible routing table issues on the network? (Choose two.)**

Router1 is missing a route to the 172.16.0.0 network

Router1 is missing a route to the 192.168.1.0 network

Router2 is missing a route to the 10.0.0.0 network

Router2 is missing a route to the 172.16.0.0 network

Router3 is missing a route to the 10.0.0.0 network

Router3 is missing a route to the 192.168.0.0 network

**25. Refer to the exhibit. What will happen if interface Serial0/0/1 goes down on Router1?**

The Dijkstra algorithm will calculate the feasible successor.

DUAL will query neighbors for a route to network 192.168.1.0.

Neighbor 172.16.3.2 will be promoted to the feasible successor.

Traffic destined to the 192.168.1.0 network will be dropped immediately due to lack of a feasible successor.

**26. Refer to the exhibit. Pings are failing between HostA and HostB. The network administrator discovers that Router1 does not have a route to the**

**172.16.0.0 network. Assuming Router2 is configured correctly, which two static routes could be configured on Router1 to enable Host A to reach network 172.16.0.0? (Choose two.)**

ip route 172.16.0.0 255.255.0.0 S0/0  
 ip route 172.16.0.0 255.255.0.0 S0/1  
 ip route 172.16.0.0 255.255.0.0 192.168.0.1  
 ip route 172.16.0.0 255.255.0.0 192.168.0.2  
 ip route 192.168.0.1 172.16.0.0 255.255.0.0 S0/0  
 ip route 192.168.0.1 172.16.0.0 255.255.0.0 S0/1

**27. Refer to the exhibit. The results of the show ip route command are displayed in the graphic for Router R2. Which route will be selected for a packet with a destination address of 10.1.4.1?**

static route to 10.1.0.0/22  
 RIP route to 10.1.0.0/23  
 RIP route to 10.1.0.0/24  
 0.0.0.0/0 via 192.168.0.1

**28. Refer to the exhibit. The network is running the RIP routing protocol. Network 10.0.0.0 goes down. Which statement is true regarding how the routers in this topology will respond to this event?**

Router4 will learn about the failed route 30 seconds later in the next periodic update.

Split horizon will prevent Router4 from forwarding packets to the 10.0.0.0 network until the holddown timer expires.

Router5 immediately flushes the unreachable route from its routing table.

Router5 will send Router4 a triggered update with a metric of 16 for network 10.0.0.0.

**29. Refer to the exhibit. When troubleshooting a network, it is important to interpret the output of various router commands. On the basis of the exhibit, which three statements are true? (Choose three.)**

The missing information for Blank 1 is the command show ip route.

The missing information for Blank 1 is the command debug ip route.

The missing information for Blank 2 is the number 100.

The missing information for Blank 2 is the number 120.

The missing information for Blank 3 is the letter R.

The missing information for Blank 3 is the letter C.

**30. A network administrator has configured a default route on Router\_A but it is not being shared with adjacent Router\_B and the other routers in the OSPF area. Which command will save the administrator the time and trouble of configuring this default route on Router\_B and all of the other routers in the OSPF area?**

Router\_A(config-router)# ospf redistribute default-route

Router\_B(config-router)# ospf redistribute default-route

Router\_A(config-router)# default-information originate

Router\_B(config-router)# default-information originate

Router\_A(config-router)# ip ospf update-default

Router\_B(config-router)# ip ospf update-default

**31. Refer to the exhibit. The network administrator issues the command no ip classless on Router1. What forwarding action will take place on a packet that is received by Router1 and is destined for host 192.168.0.26?**

The packet will be dropped.

The packet will be forwarded to the gateway of last resort.

The packet will match the 192.168.0.0 network and be forwarded out Serial 0/0.

The packet will most closely match the 192.168.0.8 subnet and be forwarded out Serial 0/1.

**32. Refer to the exhibit. A packet enters Router1 with a destination IP of 172.16.28.121. Which routing table entry will be used to forward this packet to the destination address?**

172.16.0.0/16 [1/0] via 192.168.0.1

172.16.0.0/20 [1/0] via 192.168.0.9

172.16.16.0/20 [1/0] via 192.168.0.17

0.0.0.0/0 is directly connected, Serial0/0/1

**33. The network administrator configures the router with the ip route 172.16.1.0 255.255.255.0 172.16.2.2 command. How will this route appear in the routing table?**

C 172.16.1.0 is directly connected, Serial0/0

S 172.16.1.0 is directly connected, Serial0/0

C 172.16.1.0 [1/0] via 172.16.2.2

S 172.16.1.0 [1/0] via 172.16.2.2

**34. Using default settings, what is the next step in the router boot sequence after the IOS loads from flash?**

Perform the POST routine.

Search for a backup IOS in ROM.

Load the bootstrap program from ROM.

Load the running-config file from RAM.

Locate and load the startup-config file from NVRAM.

**35. What does RIP use to reduce convergence time in a larger network?**

It reduces the update timer to 15 seconds if there are more than 10 routes.

It uses triggered updates to announce network changes if they happen in between the periodic updates.

It uses random pings to detect if a pathway is down and therefore is preemptive on finding networks that are down.

It uses multicast instead of broadcast to send routing updates.

**36. Refer to the exhibit. What are the effects of the exhibited commands on**

**the router?**

All passwords are encrypted.

Only Telnet sessions are encrypted.

Only the enable password is encrypted.

Only the enable password and Telnet session are encrypted.

Enable and console passwords are encrypted.

**37. Refer to the exhibit. What is the most efficient summarization of the routes attached to router R1?**

198.18.0.0/16

198.18.48.0/21

198.18.32.0/22

198.18.48.0/23

198.18.49.0/23

198.18.52.0/22

**38. Refer to the exhibit. All router interfaces are configured with an IP address and are operational. If no routing protocols or static routes are configured, what information will be included in the show ip route command output for router A?**

All of the 192.168.x.0 networks will be in the routing table.

Routes to networks 192.168.1.0/24, 192.168.2.0/24, and 192.168.3.0/24 will be in the routing table.

The routing table will be empty because routes and dynamic routes have not been configured.

A default route is automatically installed in the routing table to allow connectivity between the networks.

**39. Refer to the exhibit. How many routes are both level 1 and qualify for use as an ultimate route?**

1

2

3

4

5

6

**40. When presented with multiple valid routes to a destination, what criteria does a router use to determine which routes to add to the routing table?**

The router selects the routes with the best metric. All routes that have the same best metric are added to the routing table.

The router first selects routes with the lowest administrative distance. The resulting routes are then prioritized by metric and the routes with the best metric are added to the routing table.

The router selects the routes with the lowest administrative distance. All routes with the same lowest administrative distance are added to the routing table.

The router installs all routes in the routing table but uses the route with the best metric most when load balancing.

**41. Refer to the exhibit. What summary address can Router2 advertise to Router1 to reach the three networks on Routers 3, 4, and 5 without advertising any public address space or overlapping the networks on Router1?**

172.16.0.0/8

172.16.0.0/10

172.16.0.0/13

172.16.0.0/20

172.16.0.0/24

**42. What is the purpose of the TTL field within an IP packet header?**

clears an unreachable route from the routing table after the invalid timer expires.

prevents regular update messages from inappropriately reinstating a route that may have gone bad.

removes an unreachable route from the routing table after the flush timer expires

limits the period of time or number of hops a packet can traverse through the network before it should be discarded.

used to mark the route as unreachable in a routing update that is sent to other routers

**43. Refer to the exhibit. Hosts on the BOS Fa0/0 LAN are able to ping the Fa0/1 interface on the JAX router and all interfaces on the BOS and ORL routers. Why would hosts from the 10.0.0.0/24 network not be able to ping hosts on the Fa0/0 LAN of the JAX router?**

The JAX router has the wrong process ID.

The JAX router needs the network 10.0.0.0 0.0.0.255 area 0 command.

The JAX router needs the network 192.168.3.0 0.0.0.255 area 0 command.

The BOS router needs the network 192.168.3.0 0.0.0.255 area 0 command.

**44. What command would the network administrator apply to a router that is running OSPF to advertise the entire range of addresses included in 172.16.0.0/19 in area 0?**

R1(config-router)# network 172.16.0.0 0.0.0.255 area 0

R1(config-router)# network 172.16.0.0 0.0.3.255 area 0

R1(config-router)# network 172.16.0.0 0.0.15.255 area 0

R1(config-router)# network 172.16.0.0 0.0.31.255 area 0

**45. What are two tasks that must be completed before two routers can use OSPF to form a neighbor adjacency? (Choose two.)**

The routers must elect a designated router.

The routers must agree on the network type.

The routers must use the same dead interval.

The routers must exchange link state requests.

The routers must exchange database description packets.

**46. Refer to the exhibit. Which statement is true concerning the routing configuration?**

Using dynamic routing instead of static routing would have required fewer configuration steps.

The 10.1.1.0/24 and 10.1.2.0/24 routes have adjacent boundaries and should be summarized.

The static route will not work correctly.

Packets routed to the R2 ethernet interface require two routing table lookups.

**47. What can be determined from the output shown in the exhibit? (Choose two.)**

Annapolis is a 2611 router that is connected to the S0/0 interface of the Montgomery router.

All of the routers are connected to Montgomery through an Ethernet switch.

Montgomery has Layer 2 connectivity with Cumberland.

Layer 3 connectivity is operational for all of the devices listed in the Device ID column.

An administrator consoled into the Waldorf router can ping the Brant router.

Brant, Fisherman, and Potomac are directly connected to Montgomery.

**48. What is the function of the OSPF LSU packet?**

used to confirm receipt of certain types of OSPF packets

used to establish and maintain adjacency with other OSPF routers

used to request more information about any entry in the BDR

used to announce new OSPF information and to reply to certain types of requests

**50. Refer to the exhibit. All routers in the network are running RIPv2 and EIGRP with default routing protocol settings and have interfaces configured with the bandwidths that are shown in the exhibit. Which protocol will be used and how will traffic between the Router1 LAN and Router5 LAN be routed through the network?**

RIPv2 will load balance across both paths between Router1 and Router5.

EIGRP will load balance across both paths between Router1 and Router5.

RIPv2 traffic will use the path Router1, Router2, Router5 because it has the least hops.

EIGRP traffic will use the path Router1, Router3, Router4, Router5 because it has the best metric.

**51. Refer to the exhibit. A network administrator is trying to figure out why BOS does not have the 10.0.0.0/24 network in its routing table. All routers are configured for OSPF in area 0. The links between the routers are operational and the administrator is able to ping between all router interfaces. What is a logical next step that the network administrator should take to troubleshoot the problem?**

Reboot the routers.

Change the OSPF process ID on all of the routers to 0.

Check to see if the cable is loose between BOS and JAX.

Check to see if CDP packets are passing between the routers.

Use show and debug commands to determine if hellos are propagating.

**52. Refer to the exhibit. The network is using the RIPv2 routing protocol. If network 10.0.0.0 goes down, what mechanism will prevent Router1 from advertising false routing information back to Router2?**

triggered updates

poison reverse

holddown timers

split horizon

**53. Which two router component and operation pair are correctly described? (Choose two.)**

DRAM - loads the bootstrap

RAM - stores the operating system

Flash - executes diagnostics at bootup

NVRAM - stores the configuration file

ROM - stores the backup configuration file

POST - runs diagnostics on hardware modules

**54. Which of the following are primary functions of a router? (Choose two.)**

packet switching

microsegmentation

domain name resolution

path selection

flow control

**55. Refer to the exhibit. Which path will traffic from the 172.16.1.0/24 network take to get to the 10.0.0.0/24 network?**

ADC

ABC

It will load balance the traffic between ADC and ABC

It will send the traffic via ABC, and will use ADC as a backup path only when ABC fails.

**56. Refer to the exhibit. Routers 1 and 2 are directly connected over a serial link. Pings are failing between the two routers. What change by the administrator will correct the problem?**

Set the encapsulation on both routers to PPP.

Decrease the bandwidth on Serial 0/1/0 on router 2 to 1544.

Change the cable that connects the routers to a crossover cable.

Change the IP address on Serial 0/1/0 on router 2 to 192.168.0.1/30.

**57. Which two statements are true regarding link-state routing protocols? (Choose two.)**

They do not work well in networks that require special heirarchical designs.

They are aware of the complete network topology.

They pass their entire routing tables to their directly connected neighbors only.

They offer rapid convergence times in large networks.

They rely on decreasing hop counts to determine the best path.

They do not include subnet masks in their routing updates.

**58. Which three statements about routing protocols are true? (Choose three.)**

OSPF elects designated routers on multiaccess links.

RIP does not support classless routing.

EIGRP supports unequal cost load balancing.

EIGRP uses broadcast traffic to establish adjacencies with its neighbors.

RIP does not advertise a route beyond a hop count of 15.

OSPF can converge more quickly because it can find a feasible successor in its topology table when a successor route goes down.

comments (0)

TOP

05:21

## CCNA 2:Module 11

POSTED BY ADMIN

**1. Refer to the exhibit. What does the "O\*E2" from the "O\*E2 0.0.0.0/0 [110/1] via 192.168.1.1, 00:05:34, Serial0/0" line represent?**

an external OSPF route that will not increment in cost.

**2. Refer to the exhibit. What is the cost of the route to the 10.0.0.0 network?**

1786

**3. What three parameters must be identical between OSPF routers in order to form an adjacency? (Choose three.)**

area id

hello interval

network type

**4. What does OSPF use to reduce the number of exchanges of routing information in networks where large numbers of neighbors are present? (Choose two.)**

designated router

backup designated router

**5. What does OSPF use to calculate the cost to a destination network?**

bandwidth

**6. A fully converged five router OSPF network has been running successfully for several weeks. All configurations have been saved and no static routes are used. If one router looses power and reboots, what information will be in its routing table after the configuration file is loaded but before OSPF has converged?**

Routes for connected networks that are operational will be in the routing table.

**7. Refer to the exhibit. Router A is correctly configured for OSPF. Which OSPF configuration statement or set of statements was entered for router B to generate the exhibited routing table?**

B(config-router)# network 192.168.1.0 0.0.0.3 area 0

**8. Refer to the exhibit. Which network command or set of sommands will cause OSPF to be enabled to send and receive packets for any R1 interface in the exhibited subnets?**

R1(config-router)# network 0.0.0.0 255.255.255.255 area 0

**9. Refer to the exhibit. What does the "2" stand for in the router ospf 2 statement?**

The number 2 identifies this particular instance of OSPF on this router.

**10. Refer to the exhibit. All routers have been configured with the interface priorities that are shown. All routers were restarted simultaneously. The results of the DR/BDR election are shown. What can be concluded about this network?**

The highest router ID was most likely determined via an OSPF router-id statement or statements.

**11. Refer to the exhibit. What configuration statements would give the results that are shown in the output of the show ip protocols command?**

B(config)# router ospf 1

B(config-router)# router-id 192.168.1.5

**12. Refer to the exhibit. How many OSPF adjacencies must be formed to build the complete topology if a DR or BDR were not elected in this OSPF network?**

6

**13. What is the default administrative distance for OSPF?**

110

**14. Refer to the exhibit. Routers A, B, C, and D are all running OSPF with default router IDs and OSPF interface priorities. Loopback interfaces are not configured and all interfaces are operational. Router D is the DR and router C is the BDR. What happens immediately after the following commands are entered on router A?**

A(config)# interface fa0/0

A(config-if)# ip ospf priority 255

D will remain the DR. C will remain the BDR.

**15. Refer to the exhibit. All routers are running OSPF. What cost would JAX put in its routing table for the 10.0.0.0/24 network?**

1787

**16. What range of networks will be advertised in the OSPF updates by the command Router1(config-router)# network 192.168.0.0 0.0.15.255 area 100?**

192.168.0.0/24 through 192.168.15.0/24

**17. Refer to the exhibit. The network administrator wants to set the router ID of Router1 to 192.168.100.1. What steps must the administrator take to accomplish this?**

nothing, the router-id of Router1 is already 192.168.100.1

**18. Refer to the exhibit. When OSPF is operational in the exhibited network, what neighbor relationship is developed between Router1 and Router2?**

A FULL adjacency is formed.

**19. Refer to the exhibit. Assuming that the routers have default interface OSPF priorities and no configured loopback interfaces, what two roles will router B play on each network segment? (Choose two.)**

DR for network 192.168.1.200

BDR for network 192.168.1.204

**20. Refer to the exhibit. Router1 and Router2 are running OSPF. The show ip ospf neighbor command reveals no neighbors. What is a possible cause?**

OSPF hello or dead timers do not match

**21. Refer to the exhibit. Which command sequence on RouterB will redistribute a gateway of last resort to the other routers in OSPF area 0?**

RouterB(config)# ip route 0.0.0.0 0.0.0.0 172.16.6.6

RouterB(config)# router ospf 10

RouterB(config-router)# default-information originate

**22. Refer to the exhibit. RouterA, RouterB, and RouterC in the diagram are running OSPF on their Ethernet interfaces. Router D was just added to the network. Routers are configured with the loopback interfaces (Lo 0) that are shown in the exhibit. What happens to the OSPF DR/BDR after RouterD is added to the network?**

There is no change in the DR or BDR until either current DR or BDR goes down.

**23. Which two statements describe the use of OSPF DR/BDR elections? (Choose two.)**

Elections are required in broadcast multiaccess networks.

Elections are required in non-broadcast multiaccess networks.

**24. Refer to the exhibit. The routers in the exhibit are using default OSPF configuration settings to advertise all attached networks. If all of the routers start at the same time, what will be the result of the DR and BDR elections for this single area OSPF network? (Choose three.)**

Router A will be DR for 10.4.0.0/16.

HQ will be BDR for 10.4.0.0/16.

Remote will be DR for 10.5.0.0/16.

**25. Refer to the exhibit. What must be received between neighbors to prevent the dead time that is shown in the exhibit from reaching zero?**

hello packets

Posted by: Suraj Dhakal

comments (0)

TOP

05:19

## CCNA 2:Module 10

POSTED BY ADMIN

**Options With Highlight Colours are Correct Answer**

**1. Refer to the exhibit. When Router D is configured to use a link-state routing protocol and is added to the network, what is the first thing that it does to begin learning the network topology?**

It learns about its directly connected networks when its interfaces reach the up

state.

**2. What two events will cause a link state router to send LSPs to all neighbors? (Choose two.)**

whenever the network topology changes  
upon initial startup of router or routing protocol

**3. What is the final step in the link state routing process?**

SPF computes best path to each destination network

**4. What two statements correctly describe the link state routing process? (Choose two.)**

each router in the area floods LSPs to all neighbors  
all routers in the area have identical link state databases

**5. Refer to the exhibit. What kind of information would be seen in an LSP sent from router JAX to router ATL?**

cost of the link

**6. What feature do modern link-state protocols provide to minimize processing and memory requirements?**

splitting routing topologies into smaller areas

**7. To achieve network convergence, what three steps does each link state router take? (Choose three.)**

build a Link State Packet (LSP) containing the state of each directly connected link.  
flood the LSP to all neighbors, who then store all LSPs received in a database.  
construct a complete map of the topology and compute the best path to each destination network.

**8. What speeds up convergence in a network using link-state routing?**

updates triggered by network changes

**9. Why is it difficult for routing loops to occur in networks that use link-state routing?**

Each router builds a complete and synchronized view of the network.

**10. What are some of the advantages of using a link-state routing protocol instead of a distance vector routing protocol? (Choose two.)**

Routers have direct knowledge of all links in the network and how they are connected.  
After the initial LSA flooding, they generally require less bandwidth to communicate changes in a topology.

**11. Which algorithm is run by link-state routing protocols to calculate the shortest path to destination networks?**

Dijkstra

**12. Refer to the exhibit. Which statement correctly describes the path traffic would take from the 10.0.0.0/24 network to the 192.168.1.0/24 network if a link-state routing protocol was in use?**

BOS -> ORL -> JAX -> ATL because this path is the lowest cost

**13. Which database or table must be identical on all link-state routers within an area in order to construct an accurate SPF tree?**

link-state database

**14. Which two routing protocols use Dijkstra's shortest path first algorithm? (Choose two.)**

IS-IS  
OSPF

**15. When are link-state packets sent to neighbors?**

when a link goes up or down

**16. Refer to the exhibit. What does JAX do with link-state packets from ORL?**

sends out the individual link-state packets out the interface connected to BOS

**17. A new network administrator is given the task of selecting an appropriate dynamic routing protocol for a software development company. The company has over 100 routers, uses CIDR and VLSM, requires fast convergence, and uses both Cisco and non-Cisco equipment. Which routing protocol is appropriate for this company?**

OSPF

**18. What action does a link-state router take immediately upon receipt of an LSP from a neighboring router?**

floods the LSP to neighbors

**19. Refer to the exhibit. If all routers and interfaces are configured to use a link-state routing protocol, from which routers will router D receive hello packets?**

B and C

comments (0)

TOP

## CCNA 2:Module 9

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. on a router running EIGRP, what database would maintain a list of feasible successors?**

Topology table

**2. Refer to the exhibit. This is the debug output from 2 directly connected EIGRP routers. They are not forming an adjacency. What is the cause?**

Network 192.168.1.64 0.0.0.3

**3. What two actions will the EIGRP DUAL FSM take if a link to a network goes down? (Choose two.)**

Query neighbors for a new route

Search topology table for a feasible successor

**4. Refer to the exhibit. What is indicated by the P at the beginning of the topology entry?**

The route is in a stable state

**5. In which of the following tables does the EIGRP DUAL algorithm store the primary route to a destination? (Choose two.)**

Routing

Topology

**6. What information is maintained in the EIGRP topology database for a destination route? (Choose three.)**

The routing protocol

The feasible distance of the route

The route cost as advertised by the neighboring router

**7. Which of the following statements describes the bounded updates used by EIGRP?**

Partial updates are sent only to routers that need the information.

**8. Which of the following types of routes will be denoted by EX in EIGRP routing table entries? (Choose two.)**

Routes learned from other routing protocols

EIGRP routes that originate in different autonomous systems

**9. Host 192.168.1.66 in the network illustrated is unable to ping host 192.168.1.130. How must EIGRP be configured to enable connectivity between the two hosts? (Choose two.)**

R1 (config-router) # no auto-summary

R2 (config-router) # no auto-summary

**10. Which two statements describe characteristics of EIGRP? (Choose two.)**

EIGRP is a distance vector routing protocol.

EIGRP supports classless routing and VLSM.

**11. Refer to the exhibit. Based on the output of show ip eigrp neighbors, what are two possible problems with adjacencies between Router1 and Router2? (Choose two.)**

The routers are configured with different EIGRP process IDs.

The serial interfaces for both routers are in different networks.

**12. Refer to the exhibit. In the topology table, what do the numbers 3011840 and 3128695 represent?**

The total metric for that network as advertised by the EIGRP neighbor

**13. Refer to the exhibit. EIGRP is the only routing protocol enabled on this network. No static routes are configured on this router. What can be concluded about network 198.18.1.0/24 from the exhibited output?**

Packets that are destined for 198.18.1.0/24 will be forwarded to 198.18.10.6.

**14. Refer to the exhibit. All interfaces have been configured with the bandwidths that are shown in the exhibit. Assuming that all routers are using a default configuration of EIGRP as their routing protocol, what path will packets take from the 172.16.1.0/16 network to the 192.168.200.0/24 network?**

A, B, E

**15. by default, which two metrics are used by EIGRP to determine the best path between networks?**

Delay

Bandwidth

**16. Which term defines a collection of networks under the administrative control of a single entity that presents a common routing policy to the Internet?**

Autonomous system

**17. Refer to the exhibit. The company is using EIGRP with an autonomous system number of 10. Pings between hosts on networks that are connected to router A and those that are connected to router B are successful. However, users on the 192.168.3.0 network are unable to reach users on the 192.168.1.32 network. What is the most likely cause of this problem?**

The routers are not configured in the same EIGRP routing domain.

**18. in the command router eigrp 20, what is the purpose of the number 20?**

Identifies the autonomous system number this EIGRP process will advertise

**19. The show ip eigrp topology command output on a router displays a successor route and a feasible successor route to network 192.168.1.0/24. In order to reduce processor utilization, what does EIGRP do when the primary route to this network fails?**

The backup route to network 192.168.1.0/24 is installed in the routing table.

**20. What administrative distance would a router assign to a default route in EIGRP that is learned from a source external to the autonomous system?**

170



**21. Refer to the exhibit. Network 192.168.0.0/28 goes down. What type of packet does Router2 immediately send to Router1 and Router3?**

unicast update packets to 192.168.1.1 and 192.168.2.1

comments (0)

TOP

05:12

## CCNA 2:Module 8

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. Refer to the exhibit. What can be determined from this output?**

All of the routes listed are network routes.

**2. Refer to the exhibit. A packet destined for host 128.107.0.5/16 is processed by the JAX router. After finding the static route in the routing table that matches the destination network for this packet, what does the router do next?**

performs a recursive lookup to find the exit interface used to forward the packet

**3. Refer to the exhibit. What parent network will automatically be included in the routing table when the three subnets are configured on Router1?**

172.16.0.0/16

**4. The following entry is displayed in the routing table: R 192.168.8.0/24 [120/2] via 192.168.4.1, 00:00:26, Serial0/0/1 What type of route is this?**

a level 1 ultimate network route

**5. Refer to the exhibit. Router1 is running IOS version 12.2. What will the network administrator need to do so that packets for unknown child routes of 172.16.0.0/24 will not be dropped?**

do nothing, ip classless is on by default

**6. Refer to the exhibit. Router B receives a packet with a destination address of 10.16.1.97. What will router B do?**

use the default route

**7. Refer to the exhibit. How many routes in this output qualify for use as ultimate routes?**

7

**8. Refer to the exhibit. With the ip classless command issued, what will router R2 do with a packet destined for host 172.16.4.234?**

send packet out Serial0/0/1

**9. Refer to the exhibit. Which statement correctly describes this network?**

There is at least one parent and one child route

**10. Refer to the exhibit. Router1 has been issued the ip classless command. What happens to packets destined to host 172.16.3.10?**

forward out interface Serial0/0/1

**11. Refer to the exhibit. The network administrator has discovered that packets destined for servers on the 172.16.254.0 network are being dropped by Router2. What command should the administrator issue to ensure that these packets are sent out the gateway of last resort, Serial 0/0/1?**

ip classless

**12. A router has the following entries in its routing table: S 192.168.0.0/24 [1/0] via 192.168.128.2 192.168.0.0/25 [110/2175] via 172.16.1.1, 00:02:15, FastEthernet0/1 D 192.168.0.0/25 [90/22455] via 172.16.2.2, 00:12:15, Serial0/0/0 R 192.168.0.0/26 [120/2] via 172.16.3.3, 00:00:15, Serial0/0/1 The router receives a packet that is destined for a host with the address 192.168.0.58. Which route would this router use to forward the packet?**

the RIP route

**13. What determines if the router implements a classless route lookup process?**

Multiple routes with different masks to the same destination are in the routing table.

**14. What occurs when no ip classless is implemented on the router?**

The router will assume it has knowledge of all subnets in the network and will not search beyond child routes for a better match.

**15. Refer to the exhibit. The graphic contains partial contents of the routing table on router E. Router E is running version 12.3 of the IOS and is configured for default routing behavior. Router E receives a packet to forward. Which route in the routing table will be searched first and why?**

172.16.0.0/25 because it is the first level 1 route

**16. A network is converged and the routing tables are complete. When a packet needs to be forwarded, what is the first criterion used to determine the best path in the routing table?**

the route with the longest address and mask match to the destination

**17. Refer to the exhibit. What subnet mask will Router1 apply to child routes of the 172.16.0.0/24 network?**

255.255.255.0

**18. Refer to the exhibit. What protocol was used to distribute the routing information for the network 172.16.1.4?**

RIPv2

**19. A route to a destination network is learned from multiple routing protocols. What is used by a Cisco router to select the preferred route to the destination that will be installed in the routing table?**

administrative distance

comments (0)

TOP

05:09

## CCNA 2:Module 6

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. What two advantages does CIDR provide to a network? (Choose two.)**

reduced routing table size  
reduced routing update traffic

**2. Refer to the exhibit. The network administrator wants to create a subnet for the point-to-point connection between the two routers. Which subnet mask would provide enough addresses for the point-to-point link with the least number of wasted addresses?**

255.255.255.252

**3. Refer to the exhibit. A network engineer is summarizing the two groups of routes on router R1 shown in the exhibit. Which summarization will work for all the subnets?**

192.168.0.0/21

**4. Which of the following are contained in the routing updates of classless routing Protocols? (Choose two.)**

32-bit address  
subnet mask

**5. Which of the following problems does VLSM help to alleviate?**

the shortage of IP addresses

**6. What does VLSM allow a network administrator to do?**

utilize multiple subnet masks in the same IP address space

**7. Refer to the exhibit. What subnet mask will be applied if Router A sends a RIPv1 update for the network 172.16.1.0 to Router B?**

24

**8. Refer to the exhibit. The network administrator wants to minimize the number of entries in Router1's routing table. What should the administrator implement on the network?**

CIDR

**9. A router has a summary route to network 192.168.32.0/20 installed in its routing table. What range of networks are summarized by this route?**

192.168.32.0 – 192.168.47.0/24

**10. A network administrator is tasked with dividing up a class C network among the QA, Sales, and Administration departments. The QA department is made up of 10 people, the Sales is made up of 28 people, and the Administration has 6. Which two subnets masks adequately address the QA and Sales departments? (Choose two.)**

255.255.255.224 for Sales  
255.255.255.240 for QA

**11. In the network shown in the graphic, three bits were borrowed from the host portion of a Class C address. How many valid host addresses will be unused on the three point-to-point links combined if VLSM is not used?**

84

**12. A Class C address has been assigned for use in the network shown in the graphic. Using VLSM, which bit mask should be used to provide for the number of host addresses required on Router A, while wasting the fewest addresses?**

/27

**13. An additional subnet is required for a new Ethernet link between Router1 and Router2 as shown in the diagram. Which of the following subnet addresses can be configured in this network to provide a maximum of 14 useable addresses for this link while wasting the fewest addresses?**

192.1.1.224/28

**14. Which three interior routing protocols support VLSM? (Choose three.)**

OSPF  
RIP v2  
EIGRP

**15. Refer to the exhibit. The number of required host addresses for each subnet in a network is listed in the exhibit. This number includes the host address requirements for all router ports and hosts on that subnet. After all device and router port address assignments are determined, what will be**

**the total number of unused host addresses available?**

29

**16. Refer to the exhibit. In the network that is shown, the router interfaces are assigned the first address in each subnet. Which IP address would be usable for a host on one of the LANs in this network?**

192.168.2.130/25

**17. Refer to the exhibit. Which address is a broadcast address for one of the subnets that are shown in the exhibit?**

192.168.4.15/29

**18. Refer to the exhibit. A network administrator needs to create two subnetworks from 10.0.0.0/8 for a router running RIPv2. The Admin subnet requires 120 hosts and the Sales subnet requires 58 hosts. The network administrator assigned 10.0.1.128/25 to the Admin subnet. The Sales subnet is given 10.0.1.192/26. What will be the result of this addressing scheme?**

Because RIPv2 does not support VLSM, the subnet masks will not be allowed. The subnets overlap and will be rejected by the router.

**19. Refer to the exhibit. A network technician enters the static route in R1 needed to reach network 10.1.1.0/24. A ping from the S0/0/0 interface on R1 to host B fails. The technician begins testing the network and has the following results:**

pings from R1 to the S0/0/0 interface on R2....successful  
pings from R1 to the Fa0/0 interface on R2....successful  
pings from host B to hosts on the 10.1.1.0/24 network....successful  
pings from host B to the Fa0/0 interface on R2....successful  
pings from R2 to host B....successful.

The default gateway on host B is not correctly set.

**20. What is a supernet?**

a summarization of classful addresses

comments (0)

TOP

05:08

## CCNA 2:Module 5

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. Refer to the exhibit. The network that is shown is running RIPv1. The 192.168.10.0/24 network was recently added and will only contain end users. What command or set of commands should be entered on Router1 to prevent RIPv1 updates from being sent to the end user devices on the new network while still allowing this new network to be advertised to other routers?**

Router1(config-router)# no network 192.168.10.0

**2. The following line was displayed in the output of the show ip route command.**

R 192.168.3.0/24 [120/3] via 192.168.2.2, 00:00:30, Serial0/0

What is the value of the routing metric?

3

**3. Which of the following is considered a limitation of RIP v1?**

RIP v1 does not send subnet mask information in its updates.

**4. Refer to the exhibit. The Ethernet interface on Router2 goes down and the administrator notices that the route is still in the Router1 routing table. How much longer will Router1 keep the down network in its routing table before marking it as possibly down?**

155 seconds

**5. Refer to the exhibit. Router1 is running RIPv1. What command was entered into Router1 to configure the gateway of last resort?**

ip route 0.0.0.0 0.0.0.0 S0/0/1

**6. What are three characteristics of the RIPv1 routing protocol? (Choose three.)**

uses hop count as a metric

considers a metric of 16 as infinity

calculates metrics using the Bellman Ford algorithm

**7. Which of the following would be the correct command sequence to enable RIP on Router B for all connected networks?**

RouterB(config)# router rip

RouterB(config-router)# network 198.16.4.0

RouterB(config-router)# network 210.36.7.0

RouterB(config-router)# network 220.17.29.0

**8. What is the default update period in seconds for the RIP routing protocol?**

30

**9. Refer to the exhibit. What can be concluded from the routing table output of router B?**

The default-information originate command has been entered on A.

**10. Refer to the exhibit. A network consists of multiple routers. What can be verified when the show ip protocols command is issued on one of the routers in the network?**

routing protocol configuration in use for IP on this router

**11. Refer to the exhibit. All routers are configured with valid interface addresses in the indicated networks and are running RIPv1. The network is converged. Which routes are present in the routing tables?**

All routers have all /30 routes. Routers A and E also have some of the /24 routes in their routing table.

**12. Which two statements are true regarding the characteristics of RIPv1? (Choose two).**

It is a distance vector routing protocol.

The data portion of a RIP message is encapsulated into a UDP segment.

**13. Which command or set of commands will stop the RIP routing process?**

RouterB(config)# no router rip

**14. Refer to the exhibit. All routers in the exhibit are running RIP v1. The network administrator issues the show ip route command on router A. What routes would appear in the routing table output if the network is converged? (Choose two).**

R 192.168.2.0/24 [120/1]

R 10.10.1.0/24 [120/2]

**15. Which command will display RIP activity as it occurs on a router**

debug ip rip

**16. Refer to the output from the show ip route command. What can be concluded from the output of this router command?**

There are two equal cost paths to network 1.0.0.0.

**17. Refer to the exhibit. Router1 and Router2 are running the RIPv1 protocol. The network administrator configures the command network 10.1.0.0 on Router1. What network will Router1 advertise to Router2?**

10.0.0.0/8

**18. Refer to the exhibit. Pings between the serial interfaces of the routers are successful. Hosts on each LAN can ping the Fa0/0 interface of the router to which they are directly connected through the switch. However, pings between hosts on the 10.1.1.0/24 and 10.1.2.0/24 networks are unsuccessful. What is a likely cause of this problem?**

RIP is configured incorrectly on R1.

**19. What will happen if an interface IP address is entered for the address portion of the network command in a RIPv1 configuration instead of a network address?**

All interfaces in the same classful network as the configured address will be included in the RIPv1 routing process.

**20. Refer to the exhibit. All routers that are shown are running the RIP routing protocol. All unknown IP traffic must be forwarded to the ISP. What router or set of routers are recommended to have both a default route and the default-information originate command issued to implement this forwarding policy?**

only the gateway router

comments (1)

TOP

04:29

## CCNA 2:Module 4

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. Which event will cause a triggered update?**

a route is installed in the routing table

**2. Three routers running a distance-vector routing protocol lost all power, including the battery backups. When the routers reload, what will happen?**

They will send updates that include only directly connected routes to their directly connected neighbors.

**3. What does the RIP holddown timer do?**

instructs routers to ignore updates, for a specified time or event, about possible inaccessible routes

**4. Which two statements are true regarding the function of the RIPv1**

**routing updates? (Choose two).**

updates are broadcast at regular intervals  
broadcasts are sent to 255.255.255.255

**5. Which of the following statements are correct about RIP?**

will send out an update if there is a failure of a link

**6. Which two statements describe EIGRP? (Choose two.)**

EIGRP sends triggered updates whenever there is a change in topology that influences the routing information.  
EIGRP sends a partial routing table update, which includes just routes that have been changed.

**7. Which statement is true regarding cisco's RIP\_JITTER variable?**

It prevents the synchronization of routing updates by subtracting a random length of time ranging from 0% to 15% of the specified interval time from the next routing update interval.

**8. What actions will occur after RouterA loses connectivity to network 114.125.16.0? (Choose two.)**

RouterB will include network 123.92.76.0 and 136.125.85.0 in its update to RouterA.  
Router C will learn of the loss of connectivity to network 114.125.16.0 from RouterB.

**9. Which of the following methods does split horizon use to reduce incorrect routing information?**

Information learned from one source is not distributed back to that source.

**10. The graphic shows a network that is configured to use RIP routing protocol. Router2 detects that the link to Router1 has gone down. It then advertises the network for this link with a hop count metric of 16. Which routing loop prevention mechanism is in effect?**

route poisoning

**11. What is the purpose of the TTL field in the IP header?**

limits the time or hops that a packet can traverse through the network before it should be discarded

**12. Which of the following can exist in a distance vector network that has not converged? (Choose three.)**

routing loops  
inconsistent traffic forwarding  
inconsistent routing table entries

**13. Refer to the exhibit. The routers in this network are running RIP. Router A has not received an update from Router B in over three minutes. How will Router A respond?**

The Invalid timer will mark the route as unusable if an update has not been received in 180 seconds.

**14. A network administrator is evaluating RIP versus EIGRP for a new network. The network will be sensitive to congestion and must respond quickly to topology changes. What are two good reasons to choose EIGRP instead of RIP in this case? (Choose two.)**

EIGRP only updates affected neighbors.  
EIGRP updates are partial.

**15. Refer to the exhibit. What path will packets from the 192.168.1.0/24 network travel to reach the 10.0.0.0/8 network if RIP is the active routing protocol?**

The path will be router A -> router D -> router E.

**16. Which three routing protocols are distance vector routing protocols? (Choose three).**

RIPv1  
EIGRP  
RIPv2

**17. What is a routing loop?**

a condition where a packet is constantly transmitted within a series of routers without ever reaching its intended destination

**18. Which two conditions are most likely to cause a routing loop? (Choose two.)**

inconsistent routing tables  
incorrectly configured static routes

**19. What metric does the RIP routing protocol consider to be infinity?**

16

**20. What does a router running RIP do first with a new route that is received from an advertisement?**

adjusts the metric for the new route to show the added distance for the route

**21. Refer to the exhibit. If all routers are using RIP, how many rounds of updates will occur before all routers know all networks?**

3

[comments \(0\)](#)[TOP](#)

04:27

## CCNA 2:Module 3

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. Which two statements correctly describe the concepts of administrative distance and metric? (Choose two.)**

Administrative distance refers to the trustworthiness of a particular route.  
Routes with the smallest metric to a destination indicate the best path.

**2. Refer to the exhibit. Which statement correctly describes how R1 will determine the best path to R2?**

R1 will install an EIGRP route using network B in its routing table because the administrative distance of EIGRP is lower than RIP.

**3. Which two statements are true regarding classless routing protocols? (Choose two.)**

sends subnet mask information in routing updates  
allows for use of both 192.168.1.0/30 and 192.168.1.16/28 subnets in the same topology

**4. Which command would the network administrator issue to determine if load balancing is in effect on a router?**

show ip route

**5. Which statement is true regarding routing protocols?**

EIGRP uses DUAL to calculate the shortest path and can be configured to do unequal cost load balancing.

**6. Which two conditions would create a setting where the use of a distance-vector routing protocol would be efficient? (Choose two.)**

the network is using a hub and spoke topology  
the network is using a flat design

**7. What is the purpose of a routing protocol?**

It allows a router to share information about known networks with other routers.

**8. Which of the following best describes the operation of distance vector routing protocols?**

They send their routing tables to directly connected neighbors.

**9. Which of the following is associated with link-state routing protocols?**

shortest-path first calculations

**10. Why is fast convergence desirable in networks that use dynamic routing protocols?**

Routers may make incorrect forwarding decisions until the network has converged.

**11. Which of the following conditions must be met in order for a network to have converged?**

The routers in the network are operating with consistent routing knowledge.

**12. Which two statements are true regarding metrics? (Choose two.)**

EIGRP uses bandwidth as a metric.  
OSPF uses cost based on bandwidth as a metric.

**13. Which two statements are true regarding the advantages of the use of static routes? (Choose two.)**

increased security  
the administrator maintains control over routing

**14. The following line of code is displayed in a routing table:  
R 209.165.201.0/24 [120/2] via 192.168.252.2, 00:00:16, S0/0/0  
What can be concluded from this output?**

The value, 120, is used to determine the best path when a router has more than one routing protocol configured for the same destination network.

**15. What will be the result of the following commands?**

```
ORL(config)# interface fastethernet 0/0
ORL(config-if)# ip address 172.16.3.1 255.255.255.0
ORL(config-if)# no shutdown
```

A routing table entry is made to the 172.16.3.0 network with a code of "C".

**16. An engineer creates a static route by entering the Router(config)# ip route 10.0.0.0 255.255.255.0 192.168.1.2 command. What can be concluded about this route?**

The administrative distance of this route is 1.

**17. Refer to the exhibit. Router1 and Router2 are running EIGRP. All interfaces are operational and packets can be forwarded between all networks. What information will be found in the routing table for Router1?**

The administrative distance of the route to network 172.16.0.0 will be 90.

**18. The following line of code is present in the routing table:  
10.16.1.0/27 [110/129] via 192.168.1.5, 00:00:05, Serial0/0/1**  
What does the number 129 indicate in this output?

The cost for this link has a value of 129.

**19. A growing medium-sized manufacturing company recently began to have routing instability issues. The company uses static routes and has a mixture of over 30 Cisco and non-Cisco routers. The network administrator has decided to convert the network to dynamic routing. What characteristics of protocols should be considered in this selection process?**

OSPF can be used between the routers.

**20. Refer to the exhibit. If RIP is the routing protocol, what is the value of the metric from router A to network 192.168.5.0/24?**

3

**21. A router learns two paths with equal metrics to a destination network via the RIP routing protocol. How will the router handle packets to the destination network?**

The router will install both routes in the routing table and load balance between the two.

comments (0)

TOP

04:26

## CCNA 2:Module 2

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

**1. Which of the following are displayed by the Router# show cdp neighbors command? (Choose three.)**

platform  
holdtime  
local interface

**2. Why is it advisable to enter a next-hop IP address when creating a static route whose exit interface is an Ethernet network?**

In a multi-access network, the router cannot determine the next-hop MAC address for the Ethernet frame without a next-hop address.

**3. The output of the Router# show interfaces serial 0/1 command displays the following:**

Serial0/1 is up, line protocol is down.

**4. What is the most likely cause for the line protocol being down?**

No clock rate has been set.

**5. A static route that points to the next hop IP will have what administrative distance and metric in the routing table?**

administrative distance of 1 and metric of 0

**6. Refer to the exhibit. What two commands will change the next-hop address for the 10.0.0.0/8 network from 172.16.40.2 to 192.168.1.2? (Choose two.)**

A(config)# no ip route 10.0.0.0 255.0.0.0 172.16.40.2  
A(config)# ip route 10.0.0.0 255.0.0.0 192.168.1.2

**7. Refer to the exhibit. A company network engineer is assigned to establish connectivity between the two Ethernet networks so that hosts on the 10.1.1.0/24 subnet can contact hosts on the 10.1.2.0/24 subnet. The engineer has been told to use only static routing for these company routers. Which set of commands will establish connectivity between the two Ethernet networks?**

R1(config)# ip route 10.1.1.0 255.255.255.0 192.168.0.2R2(config)# ip route 10.1.2.0 255.255.255.0 192.168.0.1

**8. Refer to the exhibit. Which static route should be configured on Router1 so that host A will be able to reach host B on the 172.16.0.0 network?**

ip route 172.16.0.0 255.255.0.0 S0/0/0

**9. What address can be used to summarize networks 172.16.1.0/24, 172.16.2.0/24, 172.16.3.0/24, and 172.16.4.0/24?**

172.16.0.0/21

**11. Refer to the exhibit. What is the significance of the /8 in the route to the 10.0.0.0 network?**

It indicates the number of consecutive bits, from the left, in the destination IP address of a packet that must match 10.0.0.0 to use that route.

**12. What two devices are responsible for converting the data from the WAN service provider into a form acceptable by the router? (Choose two.)**

a modem  
a CSU/DSU device

**13. A network administrator enters the following command into Router1: ip**

route 192.168.0.0 255.255.255.0 S0/1/0. Router1 then receives a packet that is destined for 192.168.0.22/24. After finding the recently configured static route in the routing table, what does Router1 do next to process the packet?

encapsulates the packet into a frame for the WAN link and forwards the packet out the S0/1/0 interface.

14. Which piece of information is available from examining the output of the command show ip interface brief?

Interface IP address

15. Which of the following is true regarding CDP and the graphic shown?

By default, Router A will receive CDP advertisements from routers B and C.

16. Which two statements describe functions or characteristics of CDP? (Choose two.)

It starts up automatically and allows the device to detect directly connected neighbor devices that use CDP.

It allows systems to learn about each other even if different network layer protocols are configured.

17. Hosts on two separate subnets cannot communicate. The network administrator suspects a missing route in one of the routing tables. Which three commands can be used to help troubleshoot Layer 3 connectivity issues? (Choose three.)

ping

traceroute

show ip route

18. What happens to a static route entry in a routing table when the outgoing interface is not available?

The route is removed from the table.

19. The routers in the diagram use the subnet assignments shown. What is the most efficient route summary that can be configured on Router3 to advertise the internal networks to the cloud?

192.1.1.0/25

20. Refer to the exhibit. How will packets destined to the 172.16.0.0 network be forwarded?

Router1 will perform recursive lookup and packet will exit S0/0.

21. A router has one static route to each destination network. Which two scenarios would require an administrator to alter the static routes that are configured on that router? (Choose two.)

The destination network no longer exists.

A topology change occurs where the existing next-hop address or exit interface is not accessible.

22. Refer to the exhibit. Given the output in the exhibit, how would a clock rate be determined for this link?

The rate configured on the DCE determines the clock rate.

23. Refer to the exhibit. Which set of commands will configure static routes that will allow the WinterPark and the Altamonte routers to deliver packets from each LAN and direct all other traffic to the Internet?

```
WinterPark(config)# ip route 0.0.0.0 0.0.0.0 192.168.146.1
Altamonte(config)# ip route 10.0.234.0 255.255.255.0 192.168.146.2
Altamonte(config)# ip route 0.0.0.0 0.0.0.0 s0/1
```

24. Refer to the exhibit. What two commands are required to provide connectivity between the 192.168.1.0 and 10.0.0.0 networks without requiring recursive lookup? (Choose two.)

```
A(config)# ip route 10.0.0.0 255.0.0.0 s 0/1/0
```

```
B(config)# ip route 192.168.1.0 255.255.255.0 s 0/0/0
```

comments (0)

TOP

04:23

## CCNA 2:Module 1

POSTED BY ADMIN

### Options With Highlight Colours are Correct Answer

1. If a router cannot find a valid configuration file during the startup sequence, what will occur?

The router will prompt the user for a response to enter setup mode.

2. Refer to the exhibit. The network administrator has configured the router with the interface IP addresses shown for the directly connected networks. Pings from the router to hosts on the connected networks or pings between router interfaces are not working. What is the most likely problem?

The interfaces must be enabled with the no shutdown command.

3. Refer to the exhibit. What can be concluded from the routing table output in the exhibit? (Choose two.)



The FastEthernet0/0 and Serial0/0/0 interfaces of this router were configured with an IP address and the no shutdown command.

An IP packet received by this router with a destination address of 198.18.9.1 will be forwarded out of the Serial0/0/0 interface.

**4. Refer to the exhibit. The frame shown in the exhibit was received by the router. The router interfaces are operational. How will the router process this frame? (Choose two.)**

The router will change the frame type to one supported by the WAN link before forwarding the frame.

The frame was received on the Fa0/0 interface of the router and will be switched to the S0/0/0 interface.

**5. Passwords can be used to restrict access to all or parts of the Cisco IOS. Select the modes and interfaces that can be protected with passwords. (Choose three.)**

VTY interface

console interface

privileged EXEC mode

**6. Which two statements correctly describe the components of a router? (Choose two.)**

ROM contains diagnostics executed on hardware modules.

Flash memory does not lose its contents during a reboot.

**7. Refer to the exhibit. After host 2 is connected to the switch on the LAN, host 2 is unable to communicate with host 1. What is the cause of this problem?**

The subnet mask of host 2 is incorrect.

Host 1 and host 2 are on different networks.

The switch needs an IP address that is not configured.

The router LAN interface and host 1 are on different networks.

The IP address of host 1 is on a different network than is the LAN interface of the router.

**8. Which are functions of a router? (Choose three.)**

packet switching

segmentation of broadcast domains

selection of best path based on logical addressing

**9. Refer to the exhibit. All routers have a route in its routing table to each network that is shown in the exhibit. Default routes have not been issued on these routers. What can be concluded about how packets are forwarded in this network? (Choose two.)**

If RouterA receives a packet that is destined for 192.168.3.146, it will be forwarded out interface S0/0/1.

If RouterB receives a packet that is destined for 10.5.27.15, it will be forwarded out interface S0/0/1.

**10. The serial connection shown in the graphic needs to be configured. Which configuration commands must be made on the Sydney router to establish connectivity with the Melbourne site? (Choose three.)**

Sydney(config-if)# ip address 201.100.53.2 255.255.255.0

Sydney(config-if)# no shutdown

Sydney(config-if)# clock rate 56000

**11. Refer to the exhibit. What can be concluded from the output of the running-configuration of a router?**

The commands that are displayed determine the current operation of the router.

**12. Refer to the exhibit. Host A pings host B. When R4 accepts the ping into the Ethernet interface, what two pieces of header information are included? (Choose two.)**

destination IP address: 192.168.10.134

destination MAC address: 9999.DADC.1234

**13. What is the outcome of entering these commands?**

R1(config)# line vty 0 4

R1(config-line)# password check123

R1(config-line)# login

sets the password to be used for connecting to this router via Telnet

**14. Which of the following is the correct flow of routines for a router startup?**

load bootstrap, load IOS, apply configuration.

**15. What three processes does a router execute when it receives a packet from one network that is destined for another network? (Choose three.)**

decapsulates the Layer 3 packet by stripping off the Layer 2 frame header.

uses the destination IP Address in the IP header to look up the next-hop address in the routing table.

encapsulates the Layer 3 packet into the new Layer 2 frame and forwards it out the exit interface.

**16. The network administrator needs to connect two routers directly via their FastEthernet ports. What cable should the network administrator use?**

cross-over

**17. Which two statements describe characteristics of load balancing?**

**(Choose two.)**

Load balancing allows a router to forward packets over multiple paths to the same destination network.

Unequal cost load balancing is supported by EIGRP.

**18. What information about the router and its startup process can be gathered from the output of the show version command? (Choose three.)**

the last restart method

the configuration register settings

the location from where the IOS loaded

**19. Which interfaces in the exhibit could be used for a leased line WAN connection? (Choose two.)**

1

4

**20. From what location can a router load the Cisco IOS during the boot process? (Choose two.)**

TFTP server

Flash memory

**21. A network administrator has just entered new configurations into Router1. Which command should be executed to save configuration changes to NVRAM?**

Router1# copy running-config startup-config

**22. What is the default sequence for loading the configuration file?**

NVRAM, TFTP, CONSOLE

**23. What header address information does a router change in the information it receives from an attached Ethernet interface before information is transmitted out another interface?**

the Layer 2 source and destination address.

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